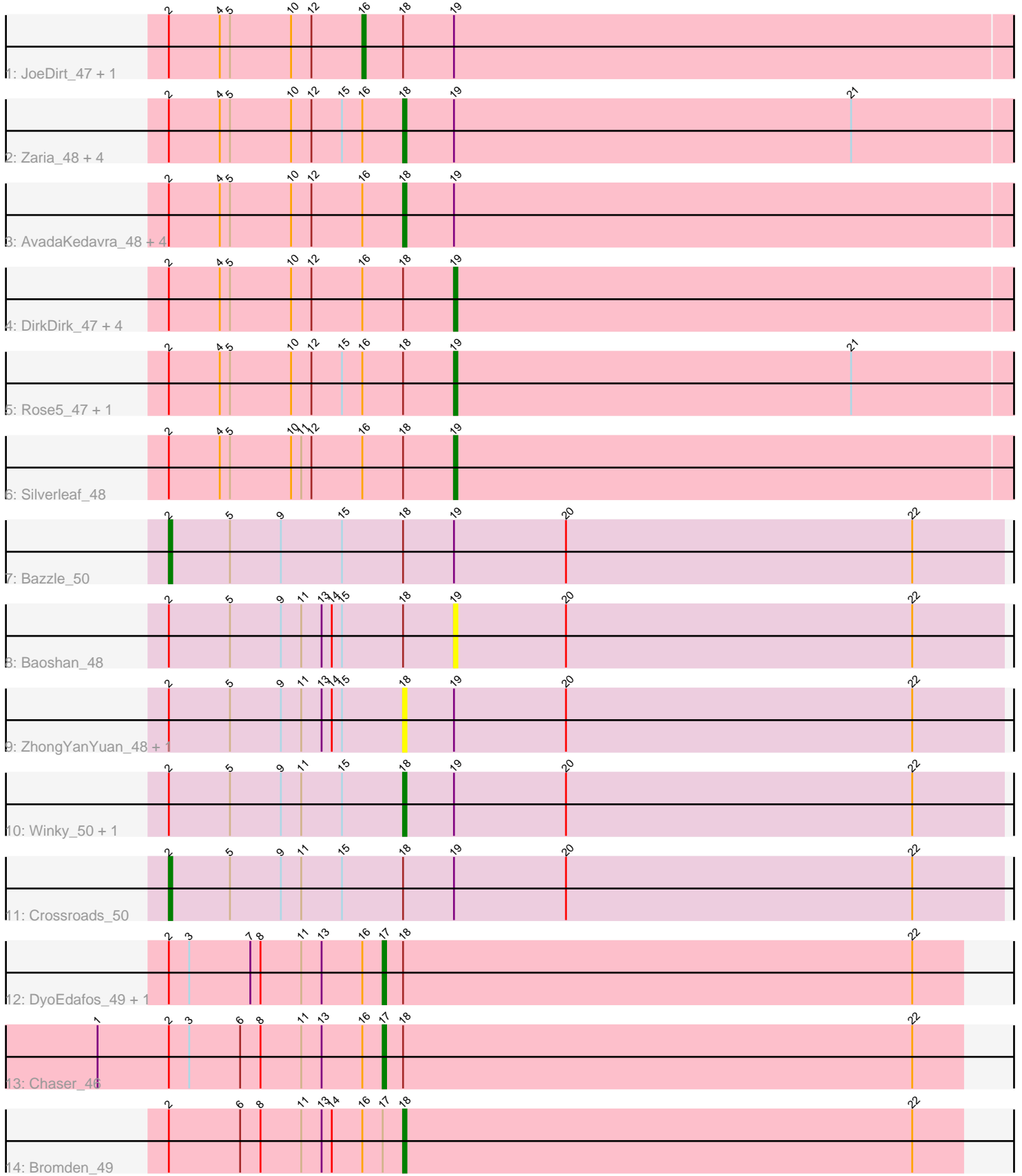


Pham 214514



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 214514 Report

This analysis was run 02/22/25 on database version 588.

Pham number 214514 has 31 members, 5 are drafts.

Phages represented in each track:

- Track 1 : JoeDirt\_47, Appletree2\_47
- Track 2 : Zaria\_48, Acquire49\_48, Wyatt2\_48, CicholasNage\_48, Calm\_48
- Track 3 : AvadaKedavra\_48, Halena\_47, OhShagHennessy\_47, UPIE\_48, LeBron\_48
- Track 4 : DirkDirk\_47, Wamburgrxpress\_48, MAckerman\_48, Poochiewood\_47, Enceladus\_47
- Track 5 : Rose5\_47, Tyson\_47
- Track 6 : Silverleaf\_48
- Track 7 : Bazzle\_50
- Track 8 : Baoshan\_48
- Track 9 : ZhongYanYuan\_48, DanBing\_49
- Track 10 : Winky\_50, Breezona\_50
- Track 11 : Crossroads\_50
- Track 12 : DyoEdafos\_49, Kropertea\_46
- Track 13 : Chaser\_46
- Track 14 : Bromden\_49

### ***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 18, it was called in 13 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49\_48, AvadaKedavra\_48, Breezona\_50, Bromden\_49, Calm\_48, CicholasNage\_48, DanBing\_49, Halena\_47, LeBron\_48, OhShagHennessy\_47, UPIE\_48, Winky\_50, Wyatt2\_48, Zaria\_48, ZhongYanYuan\_48,

Genes that have the "Most Annotated" start but do not call it:

- Appletree2\_47, Baoshan\_48, Bazzle\_50, Chaser\_46, Crossroads\_50, DirkDirk\_47, DyoEdafos\_49, Enceladus\_47, JoeDirt\_47, Kropertea\_46, MAckerman\_48, Poochiewood\_47, Rose5\_47, Silverleaf\_48, Tyson\_47, Wamburgrxpress\_48,

Genes that do not have the "Most Annotated" start:

-

## Summary by start number:

### Start 2:

- Found in 31 of 31 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 6.5% of time when present
- Phage (with cluster) where this start called: Bazzle\_50 (L2), Crossroads\_50 (L2),

### Start 16:

- Found in 24 of 31 ( 77.4% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Appletree2\_47 (L1), JoeDirt\_47 (L1),

### Start 17:

- Found in 4 of 31 ( 12.9% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Chaser\_46 (L4), DyoEdafos\_49 (L4), Kropertea\_46 (L4),

### Start 18:

- Found in 31 of 31 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 13 of 26
- Called 48.4% of time when present
- Phage (with cluster) where this start called: Acquire49\_48 (L1), AvadaKedavra\_48 (L1), Breezona\_50 (L2), Bromden\_49 (L4), Calm\_48 (L1), CicholasNage\_48 (L1), DanBing\_49 (L2), Halena\_47 (L1), LeBron\_48 (L1), OhShagHennessy\_47 (L1), UPIE\_48 (L1), Winky\_50 (L2), Wyatt2\_48 (L1), Zaria\_48 (L1), ZhongYanYuan\_48 (L2),

### Start 19:

- Found in 27 of 31 ( 87.1% ) of genes in pham
- Manual Annotations of this start: 7 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Baoshan\_48 (L2), DirkDirk\_47 (L1), Enceladus\_47 (L1), MAckerman\_48 (L1), Poochiewood\_47 (L1), Rose5\_47 (L1), Silverleaf\_48 (L1), Tyson\_47 (L1), Wamburgrxpress\_48 (L1),

## Summary by clusters:

There are 3 clusters represented in this pham: L4, L2, L1,

### Info for manual annotations of cluster L1:

- Start number 16 was manually annotated 2 times for cluster L1.
- Start number 18 was manually annotated 10 times for cluster L1.
- Start number 19 was manually annotated 7 times for cluster L1.

### Info for manual annotations of cluster L2:

- Start number 2 was manually annotated 2 times for cluster L2.
- Start number 18 was manually annotated 2 times for cluster L2.

Info for manual annotations of cluster L4:

- Start number 17 was manually annotated 2 times for cluster L4.
- Start number 18 was manually annotated 1 time for cluster L4.

**Gene Information:**

Gene: Acquire49\_48 Start: 36657, Stop: 36842, Start Num: 18

Candidate Starts for Acquire49\_48:

(Start: 2 @36588 has 2 MA's), (4, 36603), (5, 36606), (10, 36624), (12, 36630), (15, 36639), (Start: 16 @36645 has 2 MA's), (Start: 18 @36657 has 13 MA's), (Start: 19 @36672 has 7 MA's), (21, 36789),

Gene: Appletree2\_47 Start: 36575, Stop: 36772, Start Num: 16

Candidate Starts for Appletree2\_47:

(Start: 2 @36518 has 2 MA's), (4, 36533), (5, 36536), (10, 36554), (12, 36560), (Start: 16 @36575 has 2 MA's), (Start: 18 @36587 has 13 MA's), (Start: 19 @36602 has 7 MA's),

Gene: AvadaKedavra\_48 Start: 36657, Stop: 36842, Start Num: 18

Candidate Starts for AvadaKedavra\_48:

(Start: 2 @36588 has 2 MA's), (4, 36603), (5, 36606), (10, 36624), (12, 36630), (Start: 16 @36645 has 2 MA's), (Start: 18 @36657 has 13 MA's), (Start: 19 @36672 has 7 MA's),

Gene: Baoshan\_48 Start: 38125, Stop: 38286, Start Num: 19

Candidate Starts for Baoshan\_48:

(Start: 2 @38041 has 2 MA's), (5, 38059), (9, 38074), (11, 38080), (13, 38086), (14, 38089), (15, 38092), (Start: 18 @38110 has 13 MA's), (Start: 19 @38125 has 7 MA's), (20, 38158), (22, 38260),

Gene: Bazzle\_50 Start: 38384, Stop: 38629, Start Num: 2

Candidate Starts for Bazzle\_50:

(Start: 2 @38384 has 2 MA's), (5, 38402), (9, 38417), (15, 38435), (Start: 18 @38453 has 13 MA's), (Start: 19 @38468 has 7 MA's), (20, 38501), (22, 38603),

Gene: Breezona\_50 Start: 38218, Stop: 38394, Start Num: 18

Candidate Starts for Breezona\_50:

(Start: 2 @38149 has 2 MA's), (5, 38167), (9, 38182), (11, 38188), (15, 38200), (Start: 18 @38218 has 13 MA's), (Start: 19 @38233 has 7 MA's), (20, 38266), (22, 38368),

Gene: Bromden\_49 Start: 37815, Stop: 37979, Start Num: 18

Candidate Starts for Bromden\_49:

(Start: 2 @37746 has 2 MA's), (6, 37767), (8, 37773), (11, 37785), (13, 37791), (14, 37794), (Start: 16 @37803 has 2 MA's), (Start: 17 @37809 has 2 MA's), (Start: 18 @37815 has 13 MA's), (22, 37965),

Gene: Calm\_48 Start: 36672, Stop: 36857, Start Num: 18

Candidate Starts for Calm\_48:

(Start: 2 @36603 has 2 MA's), (4, 36618), (5, 36621), (10, 36639), (12, 36645), (15, 36654), (Start: 16 @36660 has 2 MA's), (Start: 18 @36672 has 13 MA's), (Start: 19 @36687 has 7 MA's), (21, 36804),

Gene: Chaser\_46 Start: 36748, Stop: 36918, Start Num: 17

Candidate Starts for Chaser\_46:

(1, 36664), (Start: 2 @36685 has 2 MA's), (3, 36691), (6, 36706), (8, 36712), (11, 36724), (13, 36730), (Start: 16 @36742 has 2 MA's), (Start: 17 @36748 has 2 MA's), (Start: 18 @36754 has 13 MA's), (22, 36904),

Gene: CicholasNage\_48 Start: 36693, Stop: 36878, Start Num: 18

Candidate Starts for CicholasNage\_48:

(Start: 2 @36624 has 2 MA's), (4, 36639), (5, 36642), (10, 36660), (12, 36666), (15, 36675), (Start: 16 @36681 has 2 MA's), (Start: 18 @36693 has 13 MA's), (Start: 19 @36708 has 7 MA's), (21, 36825),

Gene: Crossroads\_50 Start: 38151, Stop: 38396, Start Num: 2

Candidate Starts for Crossroads\_50:

(Start: 2 @38151 has 2 MA's), (5, 38169), (9, 38184), (11, 38190), (15, 38202), (Start: 18 @38220 has 13 MA's), (Start: 19 @38235 has 7 MA's), (20, 38268), (22, 38370),

Gene: DanBing\_49 Start: 38073, Stop: 38249, Start Num: 18

Candidate Starts for DanBing\_49:

(Start: 2 @38004 has 2 MA's), (5, 38022), (9, 38037), (11, 38043), (13, 38049), (14, 38052), (15, 38055), (Start: 18 @38073 has 13 MA's), (Start: 19 @38088 has 7 MA's), (20, 38121), (22, 38223),

Gene: DirkDirk\_47 Start: 36650, Stop: 36820, Start Num: 19

Candidate Starts for DirkDirk\_47:

(Start: 2 @36566 has 2 MA's), (4, 36581), (5, 36584), (10, 36602), (12, 36608), (Start: 16 @36623 has 2 MA's), (Start: 18 @36635 has 13 MA's), (Start: 19 @36650 has 7 MA's),

Gene: DyoEdafos\_49 Start: 37016, Stop: 37186, Start Num: 17

Candidate Starts for DyoEdafos\_49:

(Start: 2 @36953 has 2 MA's), (3, 36959), (7, 36977), (8, 36980), (11, 36992), (13, 36998), (Start: 16 @37010 has 2 MA's), (Start: 17 @37016 has 2 MA's), (Start: 18 @37022 has 13 MA's), (22, 37172),

Gene: Enceladus\_47 Start: 36645, Stop: 36815, Start Num: 19

Candidate Starts for Enceladus\_47:

(Start: 2 @36561 has 2 MA's), (4, 36576), (5, 36579), (10, 36597), (12, 36603), (Start: 16 @36618 has 2 MA's), (Start: 18 @36630 has 13 MA's), (Start: 19 @36645 has 7 MA's),

Gene: Halena\_47 Start: 36671, Stop: 36856, Start Num: 18

Candidate Starts for Halena\_47:

(Start: 2 @36602 has 2 MA's), (4, 36617), (5, 36620), (10, 36638), (12, 36644), (Start: 16 @36659 has 2 MA's), (Start: 18 @36671 has 13 MA's), (Start: 19 @36686 has 7 MA's),

Gene: JoeDirt\_47 Start: 36616, Stop: 36813, Start Num: 16

Candidate Starts for JoeDirt\_47:

(Start: 2 @36559 has 2 MA's), (4, 36574), (5, 36577), (10, 36595), (12, 36601), (Start: 16 @36616 has 2 MA's), (Start: 18 @36628 has 13 MA's), (Start: 19 @36643 has 7 MA's),

Gene: Kropertea\_46 Start: 36866, Stop: 37036, Start Num: 17

Candidate Starts for Kropertea\_46:

(Start: 2 @36803 has 2 MA's), (3, 36809), (7, 36827), (8, 36830), (11, 36842), (13, 36848), (Start: 16 @36860 has 2 MA's), (Start: 17 @36866 has 2 MA's), (Start: 18 @36872 has 13 MA's), (22, 37022),

Gene: LeBron\_48 Start: 36672, Stop: 36857, Start Num: 18

Candidate Starts for LeBron\_48:

(Start: 2 @36603 has 2 MA's), (4, 36618), (5, 36621), (10, 36639), (12, 36645), (Start: 16 @36660 has 2 MA's), (Start: 18 @36672 has 13 MA's), (Start: 19 @36687 has 7 MA's),

Gene: MAckerman\_48 Start: 36680, Stop: 36850, Start Num: 19

Candidate Starts for MAckerman\_48:

(Start: 2 @36596 has 2 MA's), (4, 36611), (5, 36614), (10, 36632), (12, 36638), (Start: 16 @36653 has 2 MA's), (Start: 18 @36665 has 13 MA's), (Start: 19 @36680 has 7 MA's),

Gene: OhShagHennessy\_47 Start: 36618, Stop: 36803, Start Num: 18

Candidate Starts for OhShagHennessy\_47:

(Start: 2 @36549 has 2 MA's), (4, 36564), (5, 36567), (10, 36585), (12, 36591), (Start: 16 @36606 has 2 MA's), (Start: 18 @36618 has 13 MA's), (Start: 19 @36633 has 7 MA's),

Gene: Poochiewood\_47 Start: 36661, Stop: 36831, Start Num: 19

Candidate Starts for Poochiewood\_47:

(Start: 2 @36577 has 2 MA's), (4, 36592), (5, 36595), (10, 36613), (12, 36619), (Start: 16 @36634 has 2 MA's), (Start: 18 @36646 has 13 MA's), (Start: 19 @36661 has 7 MA's),

Gene: Rose5\_47 Start: 36672, Stop: 36842, Start Num: 19

Candidate Starts for Rose5\_47:

(Start: 2 @36588 has 2 MA's), (4, 36603), (5, 36606), (10, 36624), (12, 36630), (15, 36639), (Start: 16 @36645 has 2 MA's), (Start: 18 @36657 has 13 MA's), (Start: 19 @36672 has 7 MA's), (21, 36789),

Gene: Silverleaf\_48 Start: 36665, Stop: 36835, Start Num: 19

Candidate Starts for Silverleaf\_48:

(Start: 2 @36581 has 2 MA's), (4, 36596), (5, 36599), (10, 36617), (11, 36620), (12, 36623), (Start: 16 @36638 has 2 MA's), (Start: 18 @36650 has 13 MA's), (Start: 19 @36665 has 7 MA's),

Gene: Tyson\_47 Start: 36674, Stop: 36844, Start Num: 19

Candidate Starts for Tyson\_47:

(Start: 2 @36590 has 2 MA's), (4, 36605), (5, 36608), (10, 36626), (12, 36632), (15, 36641), (Start: 16 @36647 has 2 MA's), (Start: 18 @36659 has 13 MA's), (Start: 19 @36674 has 7 MA's), (21, 36791),

Gene: UPIE\_48 Start: 36644, Stop: 36829, Start Num: 18

Candidate Starts for UPIE\_48:

(Start: 2 @36575 has 2 MA's), (4, 36590), (5, 36593), (10, 36611), (12, 36617), (Start: 16 @36632 has 2 MA's), (Start: 18 @36644 has 13 MA's), (Start: 19 @36659 has 7 MA's),

Gene: Wamburgxpress\_48 Start: 36674, Stop: 36844, Start Num: 19

Candidate Starts for Wamburgxpress\_48:

(Start: 2 @36590 has 2 MA's), (4, 36605), (5, 36608), (10, 36626), (12, 36632), (Start: 16 @36647 has 2 MA's), (Start: 18 @36659 has 13 MA's), (Start: 19 @36674 has 7 MA's),

Gene: Winky\_50 Start: 38218, Stop: 38394, Start Num: 18

Candidate Starts for Winky\_50:

(Start: 2 @38149 has 2 MA's), (5, 38167), (9, 38182), (11, 38188), (15, 38200), (Start: 18 @38218 has 13 MA's), (Start: 19 @38233 has 7 MA's), (20, 38266), (22, 38368),

Gene: Wyatt2\_48 Start: 36657, Stop: 36842, Start Num: 18

Candidate Starts for Wyatt2\_48:

(Start: 2 @36588 has 2 MA's), (4, 36603), (5, 36606), (10, 36624), (12, 36630), (15, 36639), (Start: 16 @36645 has 2 MA's), (Start: 18 @36657 has 13 MA's), (Start: 19 @36672 has 7 MA's), (21, 36789),

Gene: Zaria\_48 Start: 36672, Stop: 36857, Start Num: 18

Candidate Starts for Zaria\_48:

(Start: 2 @36603 has 2 MA's), (4, 36618), (5, 36621), (10, 36639), (12, 36645), (15, 36654), (Start: 16 @36660 has 2 MA's), (Start: 18 @36672 has 13 MA's), (Start: 19 @36687 has 7 MA's), (21, 36804),

Gene: ZhongYanYuan\_48 Start: 38074, Stop: 38250, Start Num: 18

Candidate Starts for ZhongYanYuan\_48:

(Start: 2 @38005 has 2 MA's), (5, 38023), (9, 38038), (11, 38044), (13, 38050), (14, 38053), (15, 38056), (Start: 18 @38074 has 13 MA's), (Start: 19 @38089 has 7 MA's), (20, 38122), (22, 38224),